

MODULE 4 SECTION 2**PRACTICE AND APPLICATIONS****For use with Exploration 2**

Write each rational number as the quotient of two integers.

10. 0.20

11. $\sqrt{49}$

12. $\sqrt{\frac{25}{64}}$

13. 3.5

14. $8\frac{1}{2}$

15. $\sqrt{0.25}$

Write each rational number as a repeating or a terminating decimal.

16. $\frac{7}{12}$

17. $\frac{2}{3}$

18. $\sqrt{100}$

19. $\frac{2}{9}$

20. $7\frac{3}{4}$

21. $\sqrt{\frac{36}{64}}$

Tell whether each number is *rational* or *irrational*.

22. $2\frac{3}{5}$

23. $\sqrt{26}$

24. $\frac{\sqrt{12}}{4}$

25. $18.\overline{18}$

26. 0

27. $\frac{23}{3}$

28. Challenge $\frac{2}{7}$ is a rational number because it can be written as the quotient of two integers.

a. How many decimal places repeat?

b. Give another rational number with a large number of decimal places that repeat.

29. Write the repeating decimals below in order from greatest to least. Explain your thinking.

a. $0.15\overline{4}$

$0.15\overline{4}$

$0.15\overline{4}$

$0.1\overline{5}$

b. $2.\overline{3}$

$2.3\overline{2}$

$2.3\overline{2}$

$2.33\overline{2}$

Tell whether it is possible to construct a triangle from the given side lengths. If it is possible, construct the triangle.

17. a. 6 in., 8 in., 1 in.

b. 4 in., 2 in., $2\frac{1}{2}$ in.

c. $1\frac{1}{2}$ in., $1\frac{3}{4}$ in., 2 in.

13. Use the sequences below.

Term number	1	2	3	4	5	...	n
Sequence	5	10	15	20	25	...	

Term number	1	2	3	4	5	...	n
Sequence	11	16	21	26	31	...	

Term number	1	2	3	4	5	...	n
Sequence	6	11	16	21	26	...	

a. For each sequence, write a rule. Write your rule as an expression. Use your rule to find the the 274th term.